



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

CB

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/259,420 02/26/99 DAWSON

T 834DAW

020143
THEODORE R TOUW
4 FOREST LANE
WESTFORD VT 05494

PM82/0705

EXAMINER

MALCOLM, T	
ART UNIT	PAPER NUMBER

3629
DATE MAILED:

07/05/00

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/259,420

Applicant(s)

DAWSON, TYLER R.

Examiner

Tomlyne A Malcolm

Art Unit

3629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the shaft , having all the limitations specified in the claims, the threaded set screw hole of the hub ,right cylindrical form in claim 26, and a right elliptical, cylindrical , a pyramidal and conical forms of the hub must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "chord" in claim 9, right cylindrical form in claim 26, right elliptical cylindrical form in claim 27, a pyramidal form in claim 28 and conical form in claim 29.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3629

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 4 and 21, it is unclear if the Applicant is claiming the subcombination of the hub or the combination of the hub and shaft. Claim 1 is rejected because the indefinite nature of claim 4 makes the scope of claim 1 unclear. Claims 2,3,5-20, and 31-33 are rejected because they depend from 1. Claims 22-30 are rejected because they depend from 21.

Claim 1 recites the limitation "said inner surface" in line 6; " said first opening" in line 7; " said keyway" in line 7; "said shaft" in line 7; "said first and second ends" in line 8; " said first opening" in line 9; "said shaft" in line 9; "said hub" in line 9 and "said shaft" line 9. Since claims 2-20 and 31-33 depend on claim 1, they are also rejected. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,6-8,11-16,21,22,23, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al, U.S. Patent No. 4,525,094 . Johnson discloses a hub comprising of an integral key (30) , having one or more flat surfaces , extending radially inward from an inner surface of a first opening (Fig.5) for engaging a key way when the hub is disposed on a shaft and an integral stop (Fig.1) extending across at least a portion of one of the first and second ends of the first opening, for preventing the shaft from extending beyond the hub, a second opening (28) through the integral stop, communicating with the first opening, integral key extends at least into the second opening (Fig.5), second opening has a round shape and is disposed concentrically with the first opening (Fig.1 and Fig.5), the second opening has a pie shape and the pie shaped portion of the second opening is disposed concentrically with the integral key (Fig. 3, 40,30,28), second opening has a diameter smaller than the first opening, the outer peripheral surface portion has a right circular cylindrical form (Fig.4)

In regard to claims 14-16, claim 14 is a product by process claim and is not given patentable weight, since claims 15-16 further limits claim 14, they are also rejected. However, as taught by Johnson, powdered metal elements are well known in the art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3629

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as discussed above. It would have been obvious to one of ordinary skill in the art to modify Johnson to include a shaft having a tapped hole in the end as a form of retaining means to keep the shaft from sliding out of the hub.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as discussed above in view of Shultz, U.S. Patent No. 2,738,681. Shultz teaches an integral stop bounded by a chord (36, Fig.3). It would have been obvious to one of ordinary skill in the art to modify Johnson in view of Shultz as a matter of design choice since changing the shape does not affect the function of the integral stop.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Conyngham, U.S. Patent No. 1,391,719. Conyngham teaches the use of set screws (18) is well known in the art. It would have been obvious to one of ordinary skill in the art to modify the hub disclosed in Johnson to include a hole tapped with internal threads for a set screw if it was necessary to connect the hub to another structure such as a shaft.

Art Unit: 3629

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, in view of Malone, U.S. Patent No. 5,720,685 . Malone teaches a disk-shaped body (12) having a rim formed with a peripheral recess (16) for receiving a pulley belt (18), the disk-shaped body is affixed to a hub (Fig.1 and Fig.2). It would have been obvious to one of ordinary skill in the art to modify Johnson in view of Malone if the combination of a pulley and a hub was desired. It would have been obvious to weld or press the pulley to the hub if there is a need to have them permanently joined together.

Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as discussed above . It would have been obvious to one of ordinary skill in the art to modify the hub taught in Johnson to have a generally polygonal cross-section in order to accommodate a non-circular shaft.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson, as discussed above in view of Gilman, U.S. Patent No. 3,722,929 . Gilman teaches an inner surface comprising of one or more splines (Fig.2). It would have been obvious to one of ordinary skill in the art to modify Johnson in view of Gilman as a matter of design choice as an option to having an integral key , since they both perform the same function.

Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson as discussed above . A hub having an outer peripheral surface portion having

Art Unit: 3629

a pyramidal, elliptical cylindrical, conical or splined form would have been obvious to one of ordinary skill in the art as a matter of design choice since they all perform the same function of preventing the engaged shaft from rotating.

Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Westlake, U.S. Patent No. 4,043,214. Westlake teaches a disk-shaped body (14) having a rim formed with gear teeth (32), the disk-shaped body being affixed to a hub (12). It would be obvious to one of ordinary skill in the art to modify the hub taught in Johnson to include a gear as taught by Westlake if that combination was desired. It would have been obvious to weld or press the pulley to the hub if there is a need to have them permanently joined together.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomlyne A Malcolm whose telephone number is 703-305-1566. The examiner can normally be reached on Monday through Friday from 7:30 am to 5:00 pm. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne, can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3597.

Application/Control Number: 09/259,420

Page 8

Art Unit: 3629

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.



tan



LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3620